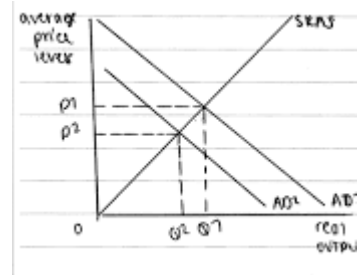# EXAMINERS' REPORT

ECONOMICS - I
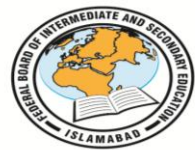
HIGHER SECONDARY SCHOOL CERTIFICATE

ANNUAL EXAMINATION 2018

Compiled By
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Chairman

FEDERAL BOARD OF INTERMEDIATE AND SECONDARY EDUCATION
ISLAMABAD – PAKISTAN

PART I: STATISTICAL INFORMATION

The examination consists of the paper of Economics having 100 marks administered to the students who completed first academic year of their Higher Secondary School Certificate (HSSC) level. The question paper was organized into three sections, namely: "Section A" consisting of question number one with twenty compulsory structured part questions - Multiple Choice Questions (MCQs) of one mark each; "Section B" having 50 percent weight-age consisting of question number two (part a & b) with twenty one part-questions - Short Response Questions (SRQs) in "part a" from which students were required to choose 15 and two mathematical sub-questions in "part b" from which one question was to be attempted; and, "Section C" consisting of 04 Extended Response Questions (ERQs) from which students were required to choose 03 questions with proportionate weight-age of 30 percent of the paper. Time duration of the paper was three hours.

A total of 4110 examinees appeared in this paper during annual examination 2018. Amongst these, 2346 examinees (55.13 percent) passed the examination with the grade distribution summarized in the following Table 1:

Table 1: Grade-wise distribution of examinees

Grade	Examinees Registered	Percentage of Grade
A1	40	0.94
A	119	2.80
B	300	7.05
C	420	9.87
D	670	15.75
E	797	18.73
F	1764	41.46
Absent	145	3.41
Total	4255	

PART II: GENERAL COMMENTS

Most of the examinees handled" Section A" well in terms of attainment of relatively better marks. This section was dominated by the questions of knowledge level cognitive domain. The examinees performed better in the knowledge based MCQs focusing only on the recall of the known facts contrary to questions involving use of quantitative aspect and comprehension of behavior of curves explaining an economic phenomenon. This suggests relatively weaker comprehension of majority of students towards cause and effect relationship, quantitative aspects and graphical illustration of the subject matter. Composition and construction of the Short Response Questions (SRQs) in "Section B" has also been analogous to former section

Fig 1: Cummulative performance in all sections
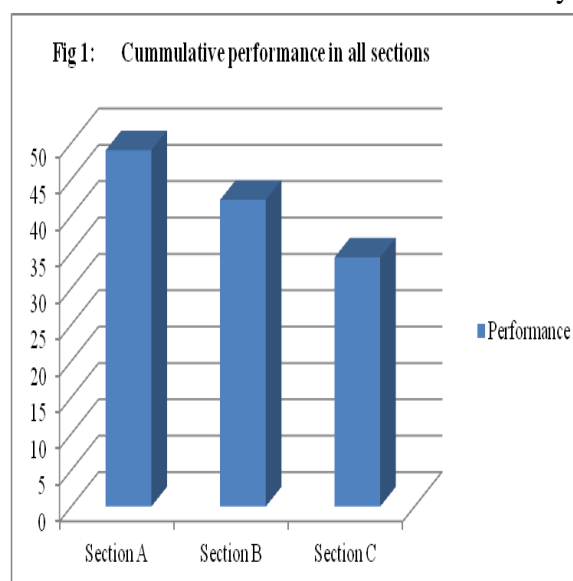
dominated by knowledge level questions in which students were asked to define, list, write down, what is..., etc. As the choice was available, therefore, majority of the students preferred these questions over the questions of partial "understanding and application" levels. Performance in "Section C" containing Extended Response Questions (ERQs) has been markedly low in comparison to preceding sections as depicted in Fig 1. Apart from composition, construct of questions in general and "Section B and C" in particular has largely been ambiguous and failed to identify explicitly the scope of question, subsequent expectations and guidance to answer by the examinees. Achievement of examinees exhibited inverse relationship with range of marks allocated against a question i.e higher achievement of examinees in format of MCQs, followed by SRQs and ERQs, respectively *(see Fig 1).*

Areas Noted for Improvement of Various Stakeholders

Analysis of question paper, answer scripts, performance and observations/comments of Head and Sub-examiners led to the identification of following deficiencies in examination system:

i) Inability of paper setter to select and use appropriate command words while writing the question items for different sections of this paper. In fact command word spells out chronology, determines the scope of question and guides the students to answer the question. For example, there was a uniform allocation of 03 marks for each part or sub-question of Question 2 in "Section B" where a good number of questions started with command word like "define". This means students just need to define the term like labor, indifference curve, Quasi rent, etc. against 03 allocated marks which is a rare phenomenon. This confused the examinees as well as examiners too while attempting and grading these questions, respectively. Therefore, simply asking to define in this section against three marks is not only unjustified but misleading too. All questions need to start with appropriate command words explaining appropriate scope of questions together with the tendency to guide the examinees how to answer them.

ii) Questions with clearly defined components and scope stitched with judicious distribution of total marks over its components in "Sections B and C" shall help guide the examinees to determine the extent of required response. For example, some students just defined term normative science, indifference curve, labour, etc as required by paper setter but the head examiners were not convinced to award three marks for a single definition and identified some additional expectations from students which might have affected examinees' achievements adversely. Conversely, examinees wrote long answers to different parts of Questions 2 (v, vii, ix, xvi, etc.) where scope of questions was not well defined. Such shortcomings were too prominent in "Section C" where each question had 10 marks but the nature of question statement was too generic, like in Question number 3 and 6. Question statement did not provide any clue towards expectations of paper setter from the examinees. Thus there is need to build greater understanding relating to the command words to be used in "Section B and C". This may help guide the students to write precise answers that respond explicitly to the requirements of questions. Knowledge of command words and their appropriate usage need to be inculcated to teachers, students, question item writers and paper setters.

iii) All sections of the question paper were dominated with questions of knowledge level and thus only promoting memorization and cramming. Assessment Grid is required to be revisited and pre-defined to have balanced paper in conformity with internationally acceptable combination of questions of different cognitive levels. Needless to mention, judicious combination of questions of different cognitive levels can only segregate the students of different learning abilities from a given cohort of an examination.

iv)   Economic phenomenon usually have theoretical, graphical and mathematical expressions. However, paper was found grossly deficient to test skills of examinees in understanding of graphs, curves and illustrating economic relationships using cause-and-effect linkages. Relative poor performance even in questions requiring incorporation of graphs and diagrams suggest revisit of SLOs, teaching material and pedagogy.

v)   Disproportionate or variant achievement of examinees in different format of questions (higher achievement in format of MCQs, followed by SRQs and ERQs, respectively) calls to: revisit the question item writing process to improve the use of appropriate command words, chronology and scope of question item; composition and pattern of question paper; , quality of distracters used in MCQs and strict monitoring during examination in general and administration of MCQs in particular; development of marking scheme with disaggregation of marks at micro level for each part of a question; and, effective monitoring by the head examiners for strict adherence to marking scheme by the sub-examiners during marking process.

vi)   Efforts shall be made to improve quality of question papers in terms of face, contents, construct and criterion validity through capacity building of test item writers and paper setters. Efforts of FBISE towards establishment and strengthening of question bank may help reduce issues of composition and construct of question papers.

PART III: QUESTION SPECIFIC COMMENTS

SECTION - A

Question number one, an exclusive question of this section comprised of 20 compulsory "Multiple Choice Questions (MCQs)" as part or sub-questions. This question was attempted by all 3892 examinees. Overall achievement of examinees in this section is summarized in Table 2 below:

Table 2:   **Distribution of examinees against different level of achievement**

Marks	1-4	5-8	9-12	13-16	17-20	Mean Marks (Percentage)
Percentage	2.88	29.96	48.51	17.11	1.10	9.8 (49)

Mean marks obtained in this section are 9.8 with overall achievement of 49 percent which is 07 and 15 percentage points higher than overall performance in the forthcoming "Section B and C", respectively. Overall achievement of 49 percent has been highly spatial. About one-third of examinees are positioned in the two lowest quintiles of marks, about half in median quintile and approximately only one percent of examinees could achieve more than eighty percent marks in this section.

 Decomposition analysis of part questions revealed that with few exceptions, questions asked were of "Knowledge" level, using command words like to define, identify known facts/situation(s), which of the following, etc. Those students who were good in memorization or recalling of facts had relatively high probability to perform better. As choice was not available with examinees and also there was no threat of negative marking, the examinees tried to attempt all part questions. Question and response analysis of this section is summarized in Table 3 below:

Table 3:   Question and response analysis with option chosen against each question

Q. #	Percentage population opting each distracter with respective point bi-serial value				Comments {cognitive level (CL), discrimination index (DI), poor distracter (PD), strong distracter (SD), facility index (FI)				
	% A	**% B**	**% C**	**% D**	CL	DI (0.27)	FI	PD	SD
1	12.5 (-0.12)	61 (0.33)	16 (-0.19)	10 (-0.09)	K	0.39	0.61	D	A,C
2	10 (-0.21)	10 (-0.17)	68 (0.4)	11 (-0.17)	K	0.45	0.68	A,B,D	--
3	4.6 (-0.17)	3.5 (-0.13)	87 (0.32)	4.8 (-0.16)	K	0.24	0.87	A,B,D	--
4	65.5 (0.34)	23.6 (-0.2)	7 (-0.13)	3.7 (-0.11)	K	0.38	0.65	C,D	B
5	23.2 (-0.07)	16.4 (0.08)	6.2 (-0.08)	53.9 (0.08)	K	0.08	0.16	--	A,C,D
6	6.6 (-0.11)	18.4 (-0.14)	14 (-0.1)	60.7 (0.29)	K	0.33	0.61	A	B,C
7	21.3 (-0.1)	24.3 (-0.11)	38 (0.28)	16.3 (-0.07)	K	0.32	0.38	--	A,B,D
8	34.8 (-0.07)	28.5 (-0.05)	23.1 (0.02)	11.9 (0.21)	K	0.15	0.12	--	A,B,C
9	76.4 (0.38)	14.9 (-0.24)	6.1 (-0.15)	2.4 (-0.12)	K	0.41	0.76	B,C,D	--
10	26.7 (0.38)	30 (-0.08)	7.4 (-0.09)	35.8 (-0.17)	K	0.41	0.27	--	B,C,D
11	16.2 (-0.02)	63.6 (0.4)	13.6 (-0.18)	6.4 (-0.11)	K	0.48	0.64	D	A,C
12	33 (-0.17)	10.6 (-0.11)	15 (-0.11)	41.2 (0.38)	K	0.46	0.41	--	A,B,C
13	18.1 (-0.05)	26.7 (0.22)	34.9 (-0.07)	20.3 (-0.02)	U	0.21	0.27	--	A,C,D
14	17.8 (-0.1)	17.4 (-0.15)	46.4 (0.34)	18.3 (-0.11)	K	0.41	0.46	--	A,B,C
15	23.9 (-0.08)	38.2 (-0.05)	24.7 (0.24)	13 (-0.02)	K	0.24	0.25	--	A,B,D
16	20.5 (-0.14)	55.1 (0.37)	13.4 (-0.16)	10.8 (-0.11)	K	0.46	0.55	D	A,C
17	70.4 (0.42)	12.9 (-0.17)	9.9 (-0.19)	6.8 (-0.18)	K	0.48	0.70	B,C,D	--
18	25.1 (-0.07)	35 (0.23)	26.1 (-0.05)	13.7 (-0.02)	K	0.24	0.35	--	A,C,D
19	76.3 (0.37)	7 (-0.16)	8.2 (-0.14)	8.3 (-0.13)	K	0.39	0.76	B,C,D	--
20	12.6 (-0.14)	14.8 (-0.18)	51 (0.46)	21.4 (-0.18)	K	0.59	0.51	--	A,B,D

*The correct answer is indicated by shading
Cognitive level: Knowledge (K), Understanding (U), Application (A)

Facility Index (FI): Question number 8, involving shift in demand and supply curves as a consequence of increase in cost of production, proved to be one of the most challenging questions and could hardly be attempted correctly by 12 percent of examinees. The least challenging was the question number 3 regarding identification of key feature of human wants i.e. unlimited human wants which was attempted correctly by 87 percent of examinees . FI value for more than fifty percent of questions is greater than 0.5 (ranged between 0.51 to 0.87), suggesting that these questions were much easier for this cohort of students. Amongst others, value of FI for six questions (05, 08, 10, 13, 15 and 18) ranged between 12 to 35 percent, suggesting relatively higher difficulty level. These questions were involving use of mathematics and comprehension of graphical illustrations/curves' behavior in an economic phenomenon, suggesting relatively weaker comprehension of majority of students towards quantitative and graphical aspects of the subject matter.

Discrimination Index (DI): A useful instrument which shows how score for this question is correlated with score of overall test. Being marginally smaller sample size, the index is calculated by taking 27 percent examinees each from upper and bottom sub-groups of this cohort. Positive value of DI for all questions suggest that questions were well stated and conveyed clear meaning to the examinees. On basis of DI values, *nine* test items are found good for having value equal to or greater than 0.4, followed by *five* reasonably good items with DI value ranged from 0.30 to 0.39; *four* marginal items with DI value ranged from 0.2 to 0.29; and, *two* poor items with DI value less than 0.2 (Ebel and Frisbie, 1986). Amongst these, *twelve* MCQs are found ideal questions having difficulty index range between 0.3 to 0.7 with DI value greater than 0.24. Discrimination effectiveness of each distracter has also been determined using similar formula as

suggested by Nitko and Hsu (1984). On basis of percentage attraction towards wrong options in relation to percentage attraction to correct choice i.e. choice of wrong option around twenty percent or above of correct option means strong distracter and vise versa. Accordingly, *five* MCQs were found deficient for not having a single strong distracters contrary to *ten* MCQs in which there was not a single week distracter.

Point Biserial (r_{pb}): This correlation coefficient is used to determine extent of discrimination amongst various distracter of a question. It relates the examinees' item score with their total score on the test (Luc Le 2012). It can be useful to establish the validity of a question as well as its distracters (LeBlanc and Cox, 2017). Its values rage between -1.00 and +1.00. A large positive value of a question and the distracters indicate that the examinees with higher mean score have opted it. Whereas, the larger negative values indicate the dwelling of low achievers on that option (distracter).

Fig 2: Point bi-serial analysis of question items (MCQs)
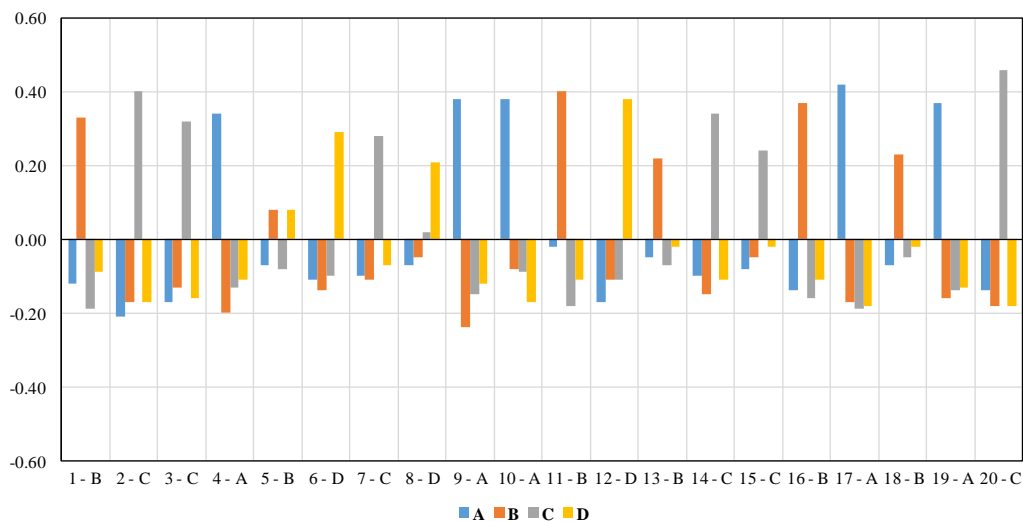
Value of r_{pb} has been positive for correct options of all questions. This value has significantly been lower for questions number 5 i.e. lesser than 0.1 (with FI 0.16). This lower value of both FI and r_{pb} indicate that the question was relatively difficult. Besides, another positive r_{pb} for distracter D was so attractive that it attracted majority of the examinees including some high achievers as well. It is also appreciable that the r_{pb} values of all the distracters in the questions 1-20 are negative except for that of distracter D and C in question 5 and 8, respectively. i.e. few examinees with higher mean scores got the question wrong in these distracters.

SECTION - B

Question number two is the single question of this section comprised of 21 "Short Response Questions (SRQs)" as sub-questions in its "part a" and two sub-questions of mathematical nature in its "part b". Contrary to "Section A", choice in selection of questions was available up to 30 percent. Approximately, three-fourth of the questions asked were of "Knowledge" level in which students were asked to define, list, write down, what is..., etc. Remaining questions were partially of "Understanding and Application" level. Besides composition, improper construct of question items was another serious issue for examinees as well as for examiners. Students who were good in

memorization or recalling of facts preferred and performed relatively better in questions of knowledge level. Mean score obtained in this section has been 21.14 marks i.e. an achievement up to 42.18 percent. More than 50 percent of examinees are positioned in the lowest quintiles of marks and approximately five percent of examinees could achieve more than eighty percent marks in this section. Overall achievement of examinees in this section is summarized in Table 4 below:

Table 4 :   Distribution of examinees against different level of achievement

Marks	1-10	11-20	21-30	31-40	41-50	Mean (Percentage)
Percentage	18.54	32.84	27.81	15.61	5.18	21.14 (42.18)

Question Specific Details of Section - B

Question 2 (i): What is normative science?
Question asked is of **knowledge level** aimed to test ability of students to i) recall or define the concept of normative science; ii) differentiate it from positive science; and, iii) substantiate it with an example preferably relating to economics. Head examiners had suggested allocation of one mark to each of the above three expectations from the examinee. As choice was available, therefore 67 percent examinees opted to attempt this question. Amongst them, 48 percent examinees satisfactorily met all the expectations of examiners and succeed to obtain good marks. Barely, a fraction of examinees also attempted to differentiate normative from positive science using suitable example.

Question 2(ii): In economic analysis, what do you know about the inductive method?

Question asked is of **knowledge level** aimed to test ability of students towards i) overall comprehension about the concept of "inductive method or approach" used in economic analysis/research/reasoning; and, ii) illustrate the approach (starting from observation to development of explanations/theory aligned with observed pattern) using an appropriate example. Head examiners suggested allocation of one and half mark to each of the above two expectations from students. This question is attempted by 64 percent examinees amongst which 52 percent examinees could hardly explain the inductive approach clearly. Barely, 20 percent of examinees attempted to draw a clear dividing line between inductive and deductive approach using appropriate example(s) expected by the examiners. Overall percentage of examinees who attempted this question satisfactorily has been around 45 percent.

iii)   Define Indifference curve

Question asked is of **knowledge level** aimed to test ability of students to i) recall or define the concept of indifference curve; and, ii) graph and substantiate it with an example. Head examiners has suggested allocation of two and one mark to each of the above two expectation from students. About 51 percent examinees opted to attempt this question. As per expectation of examiners, 39 percent examinees substantiated the concept using labeled diagram of indifference curve.

iv) Differentiate between dependent and independent variable

Question asked is of **understanding level** aimed to test ability of students towards i) to define and differentiate between independent and dependent variable with example; and, ii) write the functional form/model. Head examiners suggested allocation of two and one mark to each of the above two expectations from students, respectively. This question is attempted roughly by two-third of the total examinees. Amongst them, 50 percent examinees successfully differentiated between independent and dependent variable using appropriate example(s) and with help of functional form of model.

v) What is meant by demand?

Question asked is of **knowledge level** aimed to test ability of students to i) recall or define the concept of demand; ii) illustrate demand curve graphically; and, iii) differentiate between desire and demand with example(s). Head examiners suggested allocation of one mark to each of the above three expectations from students.

This was one of the top choice question attempted by two-third examinees. More than one-third of the examinees attempted to differentiate between desire and demand. While attempting the question, about 40 percent of the examinees attempted to exhibit their knowledge about determinants of demand other than price and used hypothetical schedule to draw demand curve. Amongst them, 56 percent examinees successfully met all the three expectations of examiners and succeeded to obtain maximum marks.

vi) The price decreases from Rs.20 to Rs.18. Quantity demanded per month increases from 50 to 60 units. Calculate price elasticity of demand by using point elasticity formula.

Question asked is of **application level** aimed to test ability of students to i) to write the formula for measuring elasticity of demand; and, ii) correct quantification of elasticity of demand. Head examiners suggested allocation of one and two marks to each of the above two expectations from students, respectively. This was a least choice question and attempted by forty five percent examinees. Amongst them, about 45 percent examinees correctly applied the formula and quantified the price elasticity of demand.

vii) What is meant by supply?

Question asked is of **knowledge level** aimed to test ability of students to i) recall or define the concept of supply; ii) differentiate between stock and supply with example(s); and, iii) graphical illustration of labeled supply curve. Head examiners suggested allocation of one mark to each of the above two expectations from students. This was one of the most choice question attempted by two-third of the examinees. Amongst them, 56 percent examinees successfully met all the three expectations of examiners and succeed to obtain maximum marks. While attempting the question, about 50 percent of the examinees attempted to exhibit their knowledge about determinants of supply other than price also substantiated the concept using hypothetical supply schedule and labeled supply curve.

viii) What is meant by 'movement along the supply curve?

Question asked is of **knowledge level** aimed to test ability of students to i) define supply curve; and, ii) develop supply schedule and graph labeled supply curve against schedule. Head examiners suggested allocation of one and two marks to each of the above two expectations from students, respectively. This was another well choice question attempted by over 60 percent examinees. Amongst them, over 50 percent examinees

successfully met all the expectations of examiners and secured good marks. While solving the question, about one third of the examinees exhibited some understanding about reasons for change and shift in supply curve and attempted to differentiate the same accordingly.

ix) If both demand and supply rise equally, then how will it affect the equilibrium price and quantity?

Question asked is of **understanding level** aimed to test ability of students to i) draw labeled diagram of demand and supply curve with initial equilibrium; and, ii) final equilibrium of demand and supply when both curves are raised equally. Head examiners suggested allocation of one and half marks to each of the above two expectation from students. This was one of the low choice question attempted by about 50 percent examinees. Amongst them, forty two percent examinees were found familiar with concept of shift in demand and supply curves. Amongst them, about 40 percent examinees could draw successfully change between initial and final equilibrium output levels by unit shift in demand and supply curves.

x) Write down the three characteristics of land

Question asked is of **knowledge level** aimed to test ability of students to recall three characteristics of land. Head examiners had suggested allocation of one mark to each of the listed category of land. This was one of the populous question opted and attempted successfully by two-third of examinees. Amongst these, more than two-third of examinees reproduced these characteristics from prescribed text book of the course and secured maximum marks.

xi) What do you know about extensive cultivation?

Question asked is of **knowledge level** aimed to test ability of students to i) recall and elaborate the concept extensive cultivation with suitable example; and, ii) differentiate it from intensive cultivation. Head examiners suggested allocation of two and one marks to each of the above two expectations from students, respectively. This was another most choice question attempted successfully by 65 percent examinees. Amongst these, one-third of examinees also attempted to identify the reasons for extensive cultivation.

xii) Define Labor.

Question asked is of **knowledge level** aimed to test ability of students to i) recall the definition of labor; and, ii) elaborate both (physical and mental exertion) with example(s). Head examiners suggested allocation of one and half marks to each of the above two expectations from students, respectively. A majority of sixty two percent examinees opted this question amongst which two-third examinees successfully met expectations and secured maximum marks. About two-third of examinees who attempted this question successfully elaborated and substantiated the concept of labor as both physical and mental exertion of body or a part of body.

xiii) Write down three factors which affect scale of production.

Question asked is of **knowledge level** aimed to test ability of students to recall the factors affecting scale of production. Head examiners suggested allocation of one mark to listing of each factor. This question is attempted successfully by 44 percent examinees. Though it was not required; however, 41 percent examinees additionally attempted to differentiate between "size and scale" of production.

xiv) Write down any three Diseconomies of scale of production

Question asked is of **knowledge level** aimed to test ability of students to recall three situations of diseconomies of scale. Head examiners suggested allocation of one mark to listing of each situation. This question is attempted successfully by 46 percent examinees. Though it was not required; however, 40 percent examinees additionally attempted to differentiate between "economies and diseconomies of scale" of production.

xv) Write down three merits of large scale production

Question asked is of **knowledge level** aimed to test ability of students to recall three merits of large scale production. Head examiners suggested allocation of one mark to listing of each merit. This was one of the fair choice question attempted by 53 percent examinees. Questions from serial number xiii-xv pertaining to cost behavior during various output levels under short and long run phenomena were usually simple and easy but overall performance of examinees have been low, suggesting possible adoption of selective studies and avoidance of this chapter from examination point of view.

xvi) Define law of increasing return

Question asked is of **knowledge level** aimed to test ability of students to i) recall the definition of law of increasing return; and, ii) graph the labeled diagram/curve of increasing returns. Head examiners suggested allocation of two and one marks to above expectations, respectively. This was one of the favorite question attempted successfully by 63 percent examinees. Though expectation (ii) was not explicit in construct or scope of question; however, 50 examinees effectively illustrated the phenomenon using labeled diagram and succeeded to obtain maximum marks.

xvii) Write down any three features of perfect competition

Question asked is of **knowledge level** aimed to test ability of students to recall three features of perfect competition. Head examiners suggested allocation of one mark to listing of each feature. This was one of the most choice questions attempted by 56 percent examinees. Amongst them, 63 percent examinees successfully met all the three expectations of examiners and succeeded to obtain maximum marks.

xviii) What do you know about shutdown point in perfect competition?
Question asked is of **understanding level** with expectation that students can i) define the shutdown point; and, illustrate the phenomenon with labeled diagram representing behavior of various cost and revenue curves during a production process. Head examiners suggested allocation of one and two marks to above expectations, respectively. It was one of least choice questions attempted by 44 percent examinees. Amongst them, 40 percent students could hardly draw and label various cost curves (MC, AC, AVC) and identify condition of normal profit, loses and shutdown cases in short run at various prices and output levels. In fact, only one-third of examinees were found conversant with short and long run phenomenon in a production process.

xix) What is Quasi Rent?

Question asked is of **knowledge level** and students are expected to i) define Quasi Rent with help of example(s); and, ii) elaborate and differentiate it with economic rent. Head examiners suggested allocation of two and one marks to above expectations,

respectively. This question was attempted by forty five percent examinees. Amongst them, 37 percent examinees successfully differentiated between economic and quasi rent. As time period was a crucial factor in differentiation; therefore, only 28 percent examinees were able to state that quasi rent is a short run phenomenon contrary to economic rent as long run phenomenon. Moreover, 31 percent examinees also attempted graphical illustration of quasi rent.

xx) Differentiate between 'Net profit' and 'Gross profit'

Question asked is of **understanding level** with expectation that students shall be able to i) differentiate between Gross and Net Profit using income and expenditure statement of a firm; and, ii) illustration with an example. Head examiners suggested allocation of two and one marks to above expectations, respectively. This was a low choice question attempted by forty three percent examinees with satisfactory performance of 49 percent. Differentiation is substantiated using hypothetical data by 38 percent examinees.

xxi) Write down any three determinants of real wages.

Question asked is of **knowledge level** and simply expect listing of three determinants of real wages. Head examiners suggested allocation of one marks for listing of each determinant of real wages. Question was attempted by fifty two percent examinees with satisfactory performance of 51 percent. Additionally, 38 and 45 percent examinees attempted to differentiate between nominal and real wages and also substantiated this difference by graphing adjusted/real wage over time, respectively, which was even not required by the examiner.

b. Attempt any ONE part   (1x5=5)

i) Find the equilibrium price and quantity with the help of following demand and supply equations: $Qd = 12 - 2P \text{ and } Qs = 6 + P$

Question asked is of **application level** aimed to test ability of students to determine equilibrium price and quantity demanded/supplied using mathematical analysis of given function. Head examiners suggested allocation of full marks to those who meet this expectation. This question was attempted by 63 percent examinees with overall satisfactory performance by 60 percent.

ii) Derive the functional equation of supply with the help of following data:

Price	Quantity
2	8
6	16

Question asked is of **application level** aimed to test ability of students to derive functional equation of supply using given schedule. Head examiners suggested allocation of full marks to those who meet this expectation. This was a least choice option attempted by 30 percent examinees with overall 39 percent satisfactory performance contrary to preceding part question.

SECTION - C

This section comprised of "Extended Response Questions (ERQs)" with equal marks. Students were required to attempt three out of four questions. Overall achievement of examinees in this section has been 34.24 percent which is much lower when compared with preceding Sections or other format of questions i.e. between 8-15 percentage points for SRQs and MCQs, respectively. Questions at large were of "Knowledge-cum-Understanding" levels with serious issue of construct, both for examinees as well as for examiners, particularly in question number 03 and 06. Approximately, a total of 40 percent examinees succeeded in attempting three required questions from this section. Cumulative score shows that about two-third of the examinees are positioned in the two lowest quintiles of marks and hardly ten percent of examinees could score beyond two-third of total marks as summarized below:

Table 5:   Distribution of examinees against different level of achievement

Marks	1-6	7-12	13-18	19-24	25-30	Mean (Percentage)
Percentage	34.9	26.44	28.87	7.5	2.3	10.28 (34.26)

Question Specific Details of Section - C

Q. 3   State and discuss the definition of Economics presented by Adam Smith.

Question asked is of **knowledge-cum-understanding** level. Question statement was too generic i.e. does not spell out chronology or determine the scope of question or guide students how they should answer this question. While preparing marking scheme, the head examiners deliberated over the question at length and determined following expectations from students in consonance of syllabus: i) recall the definition of economics given by Adam Smith; ii) elaborate four important aspects of wealth (production, consumption, exchange and distribution) around which concept of economics given by Adam Smith evolves; and, iii) view points of critics of Adam Smith. Head examiners suggested allocation of one, six and three marks to above three expectations, respectively.

This was one of the fair choice question of this section attempted by around 57 percent examinees with overall moderate achievement. Apart from recalling the definition, a majority of 59 percent examinees identified important aspects of wealth satisfactorily. However, 44 percent of examinees could not effectively present view points of critics, suggesting poor comprehension and analytical ability of examinee in diverse perspective. Mean score has been 4.14 with overall achievement of 41 percent. About 60 percent of the examinees are positioned in the two lowest quintiles of marks and hardly a fraction of over two percent of examinees could score beyond 80 percent of total marks as summarized below:

Table 6:   Distribution of examinees against different level of achievement

Marks	1-2	3-4	5-6	7-8	9-10	Mean (Percentage)
Percentage	30.37	28.48	24.28	14.55	2.30	4.14 (41.4)

Q. 4   Explain the Law of Diminishing Marginal Utility with the help of schedule and diagram. Also discuss its importance.

Question asked is of **knowledge-cum-understanding** level. Construct of question was clear in terms of chronology, scope and guidance to attempt. Head examiner had suggested following expectations from examinees: i) define law of Diminishing Marginal Utility; ii) assumption and explanation of law of Diminishing Marginal Utility; iii) develop and illustrate schedule and curve of law of Diminishing Marginal Utility; and, iv) its importance in practical life. Accordingly, allocation of one, two, five and two marks to above four expectations, respectively, was suggested by Head examiners.

This was most choice question of this section attempted by 60 percent examinees with overall satisfactory performance of 56 percent. Majority of the examinees defined and listed all required assumption. Understanding of TMU, AMU and MU curves was pre-requisite to   illustrate and explain   the phenomenon effectively. About 57 percent examinees who attempted this question illustrated and explained the phenomenon satisfactorily using appropriate schedule and labeled diagram. It proved to be a mediocre mean score question of this section i.e 4.96 with overall achievement of 49.6 percent which is 8 percentage point higher than immediate earlier question. Moreover, about 40 percent of the examinees are positioned in the two lowest quintiles of marks contrary to 60 percent in case of preceding question. Similarly, extent of examinees who scored more than 80 has also been doubled in comparison to former question. Intra- section questions' performance comparison summarized below clearly shows better performance of students in the instant question which may be attributed to the clear construct of the question :

Table 7:   Distribution of examinees against different level of achievement

Marks	1-2	3-4	5-6	7-8	9-10	Mean (Percentage)
Percentage	17.73	23.46	32.81	20.82	5.15	4.96 (49.6)

Q.5   What is monopoly? Explain the price and output determination under monopoly.

Question asked is of **knowledge-cum-understanding** level. Construct of question was relatively clear. Head examiner suggested following expectations from examinees: i) define monopoly; ii) knowledge about salient features of monopoly; iii) illustration of monopolistic market structure with help of labeled diagram; and, iv) explanation of equilibrium. Head examiners suggested allocation of one, two, four and three marks to above four expectations, respectively.

This was a fairly low choice question attempted by 43 percent examinees with overall markedly low achievement. Amongst them, more than 40 percent   of the examinees defined and listed salient features of monopoly satisfactorily. Understanding of graphs and behavior of curves was pre-requisite to illustrate and explain the phenomenon effectively. However, around 54 percent examinees who attempted this question were found extremely weak in drawing, illustrating and explaining the monopolistic market structure.   It proved to be a lowest mean score question of this section i.e 1.76 with overall achievement of 17.6 percent. Moreover, about 90 percent of the examinees are positioned in the two lowest quintiles of marks. Extremely low performance summarized below reinforces apprehension of poor understanding of curves' behavior

by the examinees to explain an economic phenomenon and thus suggesting immediate call to revisit teaching material and pedagogy :

Table 8:   Distribution of examinees against different level of achievement

| Marks	1-2	3-4	5-6	7-8	9-10	Mean (Percentage)
Percentage	78.1	14.22	4.0	2.98	0.68	1.76 (17.6)

Q.6   Critically examine 'Marginal Productivity Theory' of factors pricing

Question asked is of **understanding** level. Question statement was nonspecific with construct issue for examinees of this level, particularly in determining the scope and organizing the way to answer this question. While preparing marking scheme, head examiners deliberated over the question at length and determined following expectations from students in consonance of syllabus: i) define theory of Marginal Productivity; ii) knowledge about its assumptions; iii) illustration and explanation of Marginal Productivity theory with help of labeled diagram; and, iv) critical appraisal. Head examiners suggested allocation of one, two, four and three marks to above four expectations, respectively.

Table 9:   Distribution of examinees against different level of achievement

Marks	1-2	3-4	5-6	7-8	9-10	Mean (Percentage)
Percentage	27.6	25.76	22.69	16.56	7.36	4.55 (45.5)

This was a least choice question of this section attempted by about 25 percent examinees with overall moderate achievement. Understanding of demand and supply curves was pre-requisite to illustrate and explain the phenomenon effectively. However, 24 percent examinees who attempted this question could satisfactorily illustrate and explain the phenomenon using appropriate schedule and labeled diagram.   It proved to be a mediocre mean score question of this section i.e mean score has been 4.55 with overall achievement of 45.5 percent which is 8-28 percentage point higher than earlier question number 01 and 03, respectively. More than 50 percent of the examinees are positioned in the two lowest quintiles of marks contrary to less than 10 percent in highest quintiles as summarized in Table 9 above. A comparison of quintile distribution of examinees on basis of performance in each question depicted in Fig 2 below is found extremely asymmetrical:

Fig 2: Question-wise quintile distribution of examinees
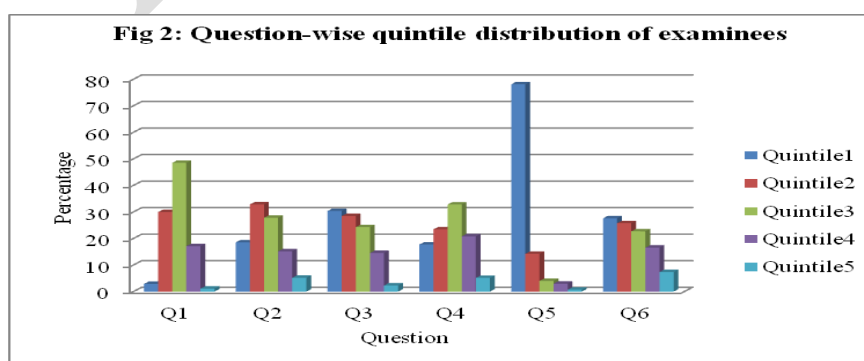
Feedback: Comments and suggestions may be shared with author of report at email: ikram@uaar.edu.pk